From: Wishnuff, Aaron [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP

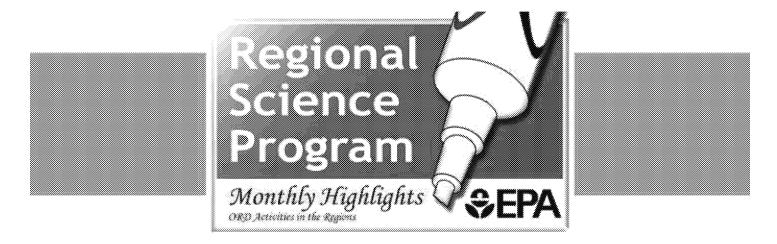
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Subject: Regional Science Program Monthly Highlights - April 2018



April 2018

<u>Top Stories</u> | <u>Around the Regions</u> | <u>Site Visits & Technical Support</u> | <u>RARE Project Updates</u> | <u>RSP Staff</u> <u>Highlight</u>

ORD's <u>Regional Science Program (RSP)</u>, managed by the Office of Science Policy (OSP), links ORD science with EPA's regional offices. The program is implemented by Headquarters staff and 20 regional scientists and engineers, known as the Regional Science Liaisons (RSLs) and the Superfund and Technology Liaisons (STLs). RSP staff build networks and partnerships between regional and ORD scientists, provide technical assistance, and deliver research results on high-priority regional science issues.

### TOP STORIES

#### Next Week: ROCS-Net Event in Cincinnati, OH

Next week, ORD will hold the <u>Regional-ORD Community of Science (ROCS-Net) Event</u> in Cincinnati, OH. ROCS-Net provides an opportunity for regional staff who have limited familiarity with ORD to visit an EPA research facility and meet with ORD scientists to discuss research priorities, collaborative opportunities and cross-cutting issues. This year, for the first time, scientists from State environmental agencies will participate with the goal of strengthening ORD-Regional-State engagement on science-related activities.

### **R2P2** Candidates Announced

On April 9, Fred Hauchman, OSP Director, announced the selection of FY18 Regional Research Partnership Program (R2P2) participants.

R2P2 provides short-term professional development opportunities for regional technical staff, helps to establish research partnerships, and links regional science needs with ORD research objectives. The program

may also be used to support short-term training opportunities for ORD staff to work in the regions. This year's program includes projects from each of the 10 regions related to PFAS, strategies for nutrient pollution reduction, remediation at contaminated groundwater sites, ambient air quality monitoring and more. A full list of the selected candidates and their R2P2 proposals is available here.

### AROUND THE REGIONS

### **Superfund Seminar on VOC treatment Technologies**

On March 21, Diana Cutt (Region 2 STL) hosted a Superfund Science Seminar for staff from OLEM and the regional offices entitled, "Passive In-Situ Chemical Oxidation (ISCO) of 1,4-Dioxane and Chlorinated Volatile Organic Compounds (VOCs), Using Slow-Release Chemical Oxidant Cylinders." A guest from CDM Smith, Dr. Patrick Evans, gave the presentation, which included a comparison of the performance and costs of different treatment technologies.

# **EnviroAtlas/EJSCREEN Training Session**

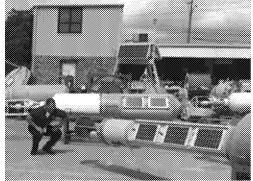
On April 11, Regina Poeske (Region 3 RSL) helped facilitate an EnviroAtlas/EJSCREEN Training Webinar and Tools Café for Region 3 and other interested EPA staff. Jessica Daniel (NERL) presented on EnviroAtlas and staff from Region 3 provided an EJSCREEN Training Session. The presentations demonstrated the complementary aspects of both tools by examining a case study set in the Mid-Atlantic region.

## **Conference on Remediation of Chlorinated and Recalcitrant Compounds**

April 8 – 12, Felicia Barnett (Region 4 STL) attended the <u>Battelle Conference on Remediation of Chlorinated</u> and <u>Recalcitrant Compounds</u> in Palm Springs, CA. Felicia chaired a platform session on groundwater/surface water interactions and a panel session entitled, "Building a Remedy with the End in Mind: Advances in Adaptive Management for Efficient Cleanup at Complex Sites." Felicia developed this panel session in collaboration with Kira Lynch (Region 10 STL) and CDM Smith. Diana Cutt (Region 2 STL) also helped to develop presentations and posters that are being shared at this conference.

### Information-Sharing Meeting on Federal Oil Spill Response

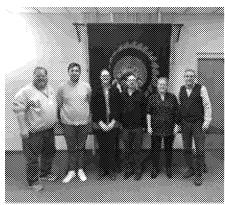
On April 6, Terry Burton (Region 6 STL) participated in a stakeholder meeting at Texas A&M University, which included university researchers, staff from the State of Texas, and oil industry professionals. Terry provided attendees with an overview of federal emergency response processes and timelines for responding to oil spills. This information-sharing event was held to inform a new research effort, led by the university, to develop more effective remediation and response techniques for oil spill events.



Terry examines solar-powered passive monitoring buoys at Texas A&M University. Buoys like these are used to capture real-time water quality data during oil spill events. Photo by: Texas A&M University Geochemical and Environmental Research Group (GERG). Location is College Station, TX.

### **Tribal Science in Region 7**

On March 19-21, Amy Shields (Region 7 RSL) hosted the EPA National Tribal Science Council Co-chair, Jose Zambrana (NERL), as he visited Region 7 and the Sac and Fox Nation of Missouri in Kansas and Nebraska to learn more about tribal science priorities in the region. The visit included meetings with Region 7 tribes, Region 7's Regional Indian Working Group, and staff and students at Haskell Indian Nations University. Region 7 has a MOA with Haskell and some ideas discussed included wetlands and air quality research, and internship possibilities for students.



Picture (left to right): Jim Callier (Section Chief, Air and Waste Division, EPA Region 7), Ian Gambill (Navajo Nation Haskell Student), Dr. Tara Marriage (Haskell Adjunct Professor), Dr. Jose Zambrana (ORD), Dr. Amy Shields (EPA Region 7 RSL), and Dr. Dan Wildcat (Haskell Professor and Administration). Photo taken by Stanley Holder, Region 7 Office of Tribal and International Coordination.

### STEM Outreach in Region 7

- On March 23, Rob Weber (Region 7 STL), Amy Shields (Region 7 RSL) and regional staff hosted a lab tour of EPA Region 7's Science and Technology Center for EPA staff and members of the community as part of the Region's Year of Science Program.
- On April 5, Rob Weber and Amy Shields represented EPA as special awards judges at the 67<sup>th</sup> Greater Kansas City Science and Engineering Fair, as part of Region 7's STEM outreach. The Fair features science projects from more than 1,000 students (grades 4-12) from around the Kansas City metro area.

### **Region 7 Superfund Training**

On March 27-29, Rob Weber (Region 7 STL) taught a portion of the CERCLA Education Center Course, RPM 201, in Kansas City, MO. The course was offered as part of the ongoing effort to prepare Regional Project Managers (RPMs) for the challenges they will encounter during all aspects of a remedial action. Participants included RPMs, On-Scene Coordinators, and state environmental staff.

## **Potential Collaboration on Kansas River Research**

On April 2, Amy Shields (Region 7 RSL), Muluken Muche (NERL) and regional staff met with the Kansas Water Office, the U.S. Army Corps of Engineers (USACE) and the Nature Conservancy to discuss the Kansas River Sustainable Rivers Program project (co-led by the USACE and Nature Conservancy). At the request of USACE, Amy coordinated with Muluken to provide background information about EPA research related to the Kansas River Basin.

### Federal-State Collaboration on Harmful Algal Bloom Research

On April 12, Amy Shields (Region 7 RSL) and other Region 7 staff met with staff from the Kansas Department of Health and Environment, Kansas State University, University of Missouri, the U.S. Army Corps of Engineers and the U.S. Geological Survey, to discuss collaborative algal bloom field and lab research in 2018. Regional staff also discussed the status of the ongoing Region 7 Harmful Algal Bloom RARE project to develop a molecular method for the detection of toxic cyanobacteria.

### SITE VISITS & TECHNICAL SUPPORT

- The STLs are engaged in regional and national workgroups to implement the recommendations set by the Superfund Task Force. In addition, the STLs and ORD's Technical Support Centers are continuing to provide technical support and work with staff to assess additional needs at many of the <u>21 sites</u> that the Administrator targeted for immediate, intense action. In furthering this support, STLs are currently drafting a white paper to summarize opportunities for ORD to support of Superfund priority sites and Taskforce Recommendations with suggestions to guide ORD strategic planning.
- On March 21, Fred Hauchman, Kacee Deener, and Felicia Barnett (Site Characterization and Monitoring Technical Support Center Director) participated in the ORD Technical Support Center (TSC) Summit in Cincinnati, OH. The Summit included discussions about the status of the five ORD TSCs, technical support mission measures, and opportunities for coordination across the Centers.

### Technical Support for Sites on the List of 21

- On April 13, Rob Weber (Region 7 STL), along with Ed Barth and John McKernan (NRMRL), met with Region 7 Superfund staff to discuss ongoing technical support needs at the <u>Des Moines TCE Superfund</u> <u>Site</u> in Des Moines, IA, and potential options for addressing the site's pesticides-contaminated sediment. This site is included on the list of Superfund sites targeted for immediate, intense action.
- Stephen Dyment (Region 8 STL) is working with CDM Smith visualization experts to develop a
  preliminary visualization of the Sunbank Group Mine, part of the <u>Bonita Peak Mining District (BMPD)</u>
  <u>Superfund Site</u>. The preliminary visualization will be shared with project team stakeholders and
  regional Superfund staff on April 25 to highlight recent advancements in visualization software and
  explore additional opportunities for ORD to provide visualization support at BPMD and other Region 8
  Superfund sites.

#### **PFAS**

- On March 22, Rob Weber (Region 7 STL) met with Region 7 management and the Region 7 Superfund
  PFAS Coordinator to discuss Region 7 sites with potential PFAS contamination. The group will work
  from a draft list of possible PFAS sites to help regional staff develop a plan for evaluating sites for PFAS
  contamination.
- On April 13, Carole Braverman (Region 5 RSL) met with representatives from Region 5, OCSPP, the
  Minnesota Pollution Control Agency (MPCA), the Michigan Department of Environmental Quality
  (MDEQ), as well as Mark Strynar, Tim Buckley and others from NERL, to discuss the region's request for
  ORD assistance related to PFAS after MPCA and MDEQ raised concerns about PFAS generated during
  industrial chromium electroplating processes.
- On April 19, Charles Maurice (Region 5 STL) and Carole Braverman (Region 5 RSL), along with Region 5 staff, met with Andrew Gillespie (NERL) during his visit to Chicago, IL, for the Region 5/State Commissioners Meeting. This information-sharing meeting will include a discussion of Region 5's PFAS-related issues, needs, and resource capabilities.

### **Other Technical Support**

- On March 21, Kira Lynch (Region 10 STL) met with Region 10 Superfund staff and representatives of the
  potentially responsible party to discuss additional site characterization needs and the updated
  conceptual site model for the <u>Bremerton Gas Works Superfund Site</u> in Bremerton, WA. The site is a
  former manufactured gas plant where industrial activities have led to contamination of groundwater,
  soils, and sediments with VOCs, metals, and polycyclic aromatic hydrocarbons (PAH).
- On March 27, Kira Lynch (Region 10 STL) participated in a briefing for the Region 10 Regional
  Administrator (RA) on the <u>Eastern Michaud Flats Contamination Site</u> FMC Corporation Operating Unit
  in Pocatello, ID. The objective of the briefing was to prepare the RA for a meeting with FMC on March
  29 and make recommendations on potential options for responding to tribal concerns raised about the
  site remedial actions.
- On April 2, Kira Lynch (Region 10 STL) met with regional staff, representatives from ID and WA state
  agencies, local tribes, and resource trustees to discuss the Bunker Hill Lower Basin remedial action
  plan. The Lower Basin is an operable unit of the <u>Bunker Hill Superfund Site</u> in Smelterville, ID, that
  includes 35 river miles and 18,000 acres of wide-open flood plain. Soil, sediment, groundwater and
  surface water are contaminated with heavy metals such as lead.
- On April 3-4, Rob Weber (Region 7 STL), Souhail Al-Abed (NRMRL) and Mark Johnson (NHEERL) met with Region 7 staff and USDA to discuss ORD technical support and research projects in the Tri-State Mining District (TSMD), which includes Superfund sites in <u>KS</u>, <u>MO</u>, and <u>OK</u>. The meeting included site visits to selected TSMD locations.
- On April 3-5, Steve Dyment (Region 8 STL) met with Region 8 Superfund staff, the Utah Department of Environmental Quality and representatives of the potentially responsible party to discuss a proposed waste containment cell expansion at the <u>U.S. Magnesium Superfund Site</u> in Tooele County, UT. The

- project team is considering potential impacts to the surrounding area and discussing options for using direct sensing tools to help evaluate groundwater flow.
- On April 4, Felicia Barnett (Region 4 STL and SCMTSC Director) met with Region 2 emergency response staff and contractors to discuss the scope of an air dispersion modeling effort and potential health risks at the Vo-Toys site in Harrison, NJ. The Vo-Toys site is a former light bulb and RCA picture tube manufacturing plant where elevated levels of mercury vapor have been detected inside the abandoned facility.
- On April 9, Rob Weber (Region 7 STL), along with Ellen Kirrane and James Brown (NCEA), met with Region 7 Superfund staff to discuss progress on ORD technical support at the <u>Omaha Lead Superfund</u> <u>Site</u>, a former lead smelter site in Omaha, NE. ORD is working with Region 7 to evaluate, model and predict the impacts of residential lead remediation on blood lead levels in local children and to determine if additional remediation is needed.
- On April 19, Jonathan Essoka (Region 3 STL), Felicia Barnett (Region 4 STL), Jan Szaro (Region 1 STL) and
  Dave Burden (NRMRL) met to discuss potential technical support needs related to passive groundwater
  and surface water sampling methods at the <u>Central Chemical Superfund Site</u> in Hagerstown, MD. The
  site is a former pesticide/fertilizer blending and packaging facility where plumes of agricultural
  pesticides have contaminated the surface and groundwater.

### R/ARTE PROJECT UPD/ATTES

## Stakeholder Engagement in Baltimore

On April 3-4, Jonathan Essoka (Region 3 STL), Marilyn TenBrink, Jesse Sayles (NHEERL) and Region 3 staff, held a series of information sharing meetings with local stakeholder organizations in Baltimore, MD, as part of the <u>FY17 Baltimore Harbor RARE project</u>. The goal of this RARE project is to engage data users to better evaluate different data delivery mechanisms and establish methods to measure successful engagement in the <u>Baltimore Harbor Village Blue project</u>.

## Sharing ORD Air Pollution Research at a Region 7 Advance Program Meeting

On April 3, Amy Shields (Region 7 RSL) coordinated presentations by regional project team staff on EPA's <u>Smoke Sense study</u> and the <u>FY17 KC-TRAQS RARE project</u> for local stakeholders and state staff from KS, NE, IA, and MO, at the Region 7 <u>Advance Program</u> meeting. EPA's Advance Program promotes local actions in attainment areas to reduce ozone and/or fine particle pollution (PM<sub>2.5</sub>) to help these areas continue to maintain the National Ambient Air Quality Standards.

### RSP STAFF HIGHLIGHT

## Stephen Dyment - Region 8 STL



### How long have you been with EPA? How long have you been an STL?

I started with EPA in 2005 working for the Technology Innovation Office (TIO) which became part of the Technology Innovation and Field Services Division (TIFSD) of the Office of Superfund Remediation and Technology Innovation (OSRTI). Leveraging 10 years of providing direct site technical support services in all EPA regions for TIFSD, I joined ORD OSP's STL program in 2015.

### What do you enjoy most about your position as an STL?

Working with diverse technical teams to address challenging issues in Superfund and the hazardous waste programs. I really enjoy getting in the field and working closely with Superfund project teams to tackle unique site challenges, conduct applied research, and provide access to subject matter expertise in ORD.

### What is an example of a high-priority issue in your region?

Region 8 has a high percentage of mine and mineral processing sites in our Superfund and NPL portfolio. These sites remain challenging due to large historic operational footprints, complex surface and subsurface reactions, and metal contaminants easily transported in air as dust or in mine wastes, surface water, groundwater, and sediments.

### How has ORD helped address this issue?

ORD is currently providing technical support at several mine and smelter sites in Region 8. We continue to apply innovative technologies and sampling strategies for characterization including high resolution and direct sensing techniques, field analytical methods, and geophysics for robust conceptual site model development. Using the latest high resolution tools and 3D visualization software we are able to compress field activities and significantly increase data density yielding improved remediation system designs and performance.

### What ORD Staff have been particularly helpful to you in your position as STL?

Over the last year I have had the pleasure of supporting both STL and RSL activities here in Denver. OSP management, STLs, and RSLs have been extremely supportive in those efforts. The level of talent and intellectual firepower among OSP colleagues and with ORD TSCs and labs has made these efforts easy. I continue to learn every day and grow professionally working alongside these amazing agency resources.

Additional Resources:

RSL and STL Contact information available <u>here</u>.

For more information about the program, visit the <u>RSP intranet site</u>.

Questions? Contact <u>Maggie LaVay</u> (202-564-5264)